



DATA SHEET

MZT8-2V6PSAKP0

MZT8 VIA
Cylinder sensors

SICK

Sensor Intelligence



CYLINDER SENSORS

MZT8-2V6PSAKP0

ORDERING INFORMATION

Type	part no.
MZT8-2V6PSAKP0	1073264

Further device versions and accessories at www.sick.com/MZT8_VIA



DETAILED TECHNICAL DATA

FEATURES

Cylinder type	T-slot
Cylinder types with adapter	Profile cylinder Tie rod cylinder Round body cylinder Dovetail groove cylinder SMC rail CDQ2 SMC rail ECDQ2
Housing length	24 mm
Switching output	PNP
Switching frequency	1,000 Hz
Output function	NO, IO-Link
Electrical wiring	DC 3-wire
Enclosure rating	IP68 ¹⁾ IP69 ²⁾
Adjustment	IO-Link NC or NO Switch-on or switch-off delay (up to 1.6 seconds)
Special features	Visual installation aid/LED indicator (yellow) Power LED (green) Interior housing temperature (via IO-Link) Counter function (via IO-Link)

¹⁾ According to EN 60529.
²⁾ In accordance with EN 60529. Sensor head and cable only (plug excluded).

MECHANICS/ELECTRONICS

Supply voltage	10 V DC ... 30 V DC																
Power consumption	10 mA, without load																
Voltage drop	≤ 2.2 V																
Continuous current I_a	≤ 200 mA																
Protection class	III																
Response sensitivity, typ.	2.6 mT																
Overrun distance, typ.	3 mm ¹⁾																
Hysteresis, typ.	0.7 mT																
Reproducibility	≤ 0.1 mT ²⁾																
Reverse polarity protection	Yes																
Short-circuit protection	Yes																
Status indicator LED	Yes																
Teach-in	No																
Power-up pulse protection	Yes																
Ambient operating temperature	-30 °C ... +80 °C																
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm																
EMC	According to EN 60947-5-2																
Connection type	Cable with connector M8, 3-pin, drag chain use, 0.3 m																
Connection type Detail	<table> <tr> <td>Conductor cross section</td><td>0.14 mm²</td></tr> <tr> <td>Cable diameter</td><td>Ø 2.9 mm</td></tr> <tr> <td>Bending radius</td><td>With fixed installation > 3 x cable diameter For flexible use > 10 x cable diameter</td></tr> <tr> <td>Torsion force</td><td>± 270° / 10 cm</td></tr> <tr> <td>Torsion cycles</td><td>> 2,000,000</td></tr> <tr> <td>Drag chain cycles</td><td>> 2,000,000</td></tr> <tr> <td>Drag chain parameters</td><td>Traversing speed max. 3.3 m/s at 5 m horizontal traversing length Acceleration max. 5 m/s²</td></tr> <tr> <td>Cable outlet</td><td>Axial</td></tr> </table>	Conductor cross section	0.14 mm ²	Cable diameter	Ø 2.9 mm	Bending radius	With fixed installation > 3 x cable diameter For flexible use > 10 x cable diameter	Torsion force	± 270° / 10 cm	Torsion cycles	> 2,000,000	Drag chain cycles	> 2,000,000	Drag chain parameters	Traversing speed max. 3.3 m/s at 5 m horizontal traversing length Acceleration max. 5 m/s ²	Cable outlet	Axial
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UL File No.	NRKH.E181493 & NRKH7.E181493																

¹⁾ Distance covered by the encoder magnet while the sensor outputs a switching signal.

²⁾ Supply voltage U_a and constant ambient temperature T_a .

³⁾ PVC-cable without UL-Certificate.

SAFETY-RELATED PARAMETERS

MTTF _D	2,289 years
DC _{avg}	0 %
T _M (mission time)	20 years

COMMUNICATION INTERFACE

Communication interface	IO-Link V1.0
Communication Interface detail	COM2 (38,4 kBaud)
Cycle time	10.4 ms
Process data length	8 Bit
Process data structure	Bit 0 = switching signal Q_{L1} Bit 1 = switching signal Q_{L2} Bit 2 ... 7 = empty

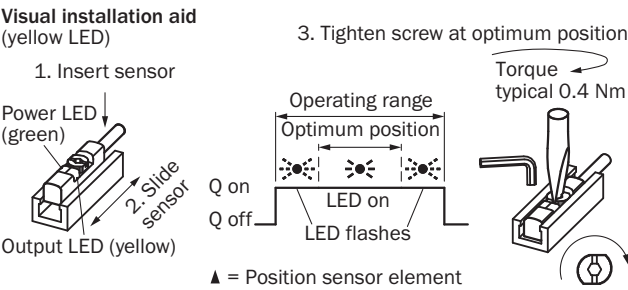
CYLINDER SENSORS - MZT8-2V6PSAKP0

VendorID	26
DeviceID HEX	0x80015D
DeviceID DEC	8388957

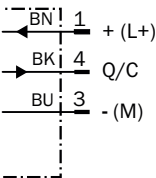
CERTIFICATES

EU declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓
cULus certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

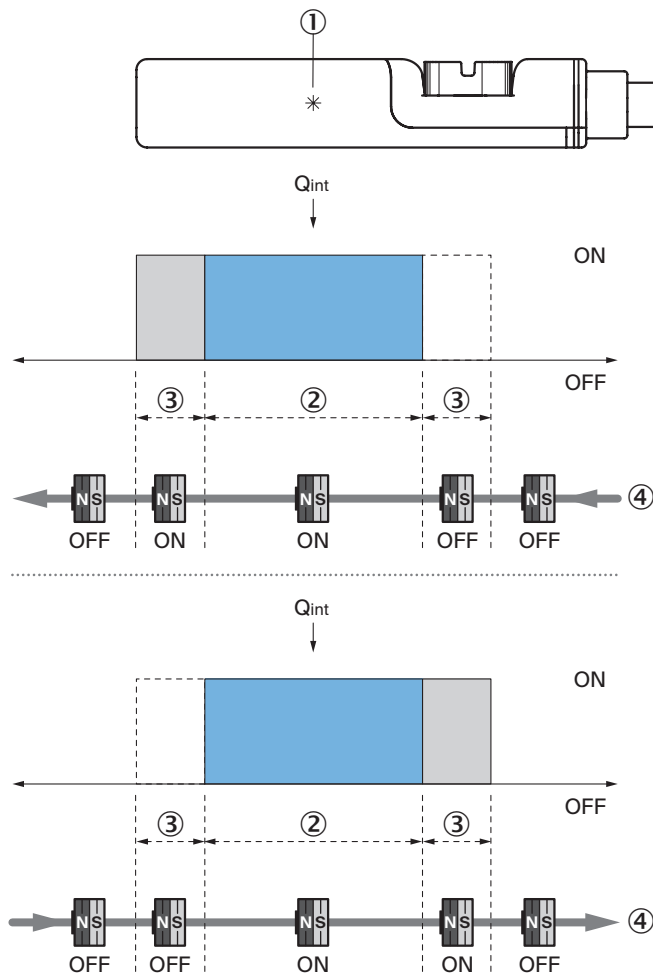
INSTALLATION NOTE



CONNECTION DIAGRAM CD-401



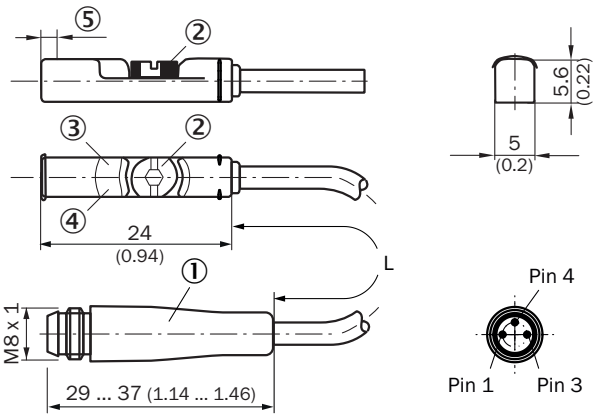
FUNCTIONAL PRINCIPLE OVERRUN DISTANCE



Note: Sensor housing may differ; representation corresponds to "NO contact" output function; overrun distance = switching point width + hysteresis

- ① Position sensor element
- ② Width of the switching point
- ③ Hysteresis
- ④ Direction of movement of the magnet

DIMENSIONAL DRAWING CABLE WITH CONNECTOR M8



Dimensions in mm (inch)

- ① Connection
- ② Fixing screw SW 2.0
- ③ visual installation aid/LED indicator (yellow)
- ④ Power LED (green)
- ⑤ Sensor element position; short overrun distance (3 mm): 2.25 mm, long overrun distance (9 mm): 1.5 mm

Part no.	Type	L	Number of cores
1073264	MZT8-2V6PSAKP0	300 mm	3
1100929	MZT8-03VPSAKP0	300 mm	3
1142808	MZT8-03VPSAKPOS43	300 mm	3
1150112	MZT8-03VPSAKROS48	300 mm	3

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1073264



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SICK AT A GLANCE

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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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